

## ABSTRACT

According to the method for analyzing physical and/or chemical properties of the surface layer of a solid as per claim 1, the surface layer is activated by a unit irradiation pulse and, when the irradiation is over, is  
5 deactivated by keeping the solid at a constant temperature and subsequently heating it, the spectrum of the energy quanta emitted by the surface layer of the solid is recorded during the deactivation; the spectrum of the emitted energy quanta recorded at a constant temperature provides data on the loosely coupled states of the surface layer and their  
10 half-lives and the thermoluminescence spectrum recorded during the heating gives information on phase and relaxation transition temperatures in the surface layer.

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